

Reply to Office Action dated October 27, 2005

REMARKS

Claims 1, 3, 5, 7-9, 11-13 and 26-39 are pending in this application. By this Amendment, claims 1, 3, 5, 7-9, 11-12, 26 and 29-33 are amended, new claims 34-39 are added and claims 2, 4 and 6 are cancelled without prejudice or disclaimer. Various amendments are made to the claims for clarity and are unrelated to issues of patentability.

The Office Action rejects claims 1, 3, 5, 11, 29, 32 and 33 under 35 U.S.C. 102(b) by U.S. Patent 6,514,111 to Ebihara. The Office Action rejects claims 26-28, 30 and 31 under 35 U.S.C. 102(b) by U.S. Patent 6,495,262 to Igeta. Additionally, the Office Action rejects claims 2, and 7-9 under 35 U.S.C. 103(a) over Ebihara in view of U.S. Patent 6,097,149 to Miyaji. Still further, the Office Action rejects claims 4 and 6 under 35 U.S.C. 103(a) over Ebihara in view of Igeta. The Office Action further rejects claims 12 and 13 under 35 U.S.C. 103(a) over Ebihara in view of U.S. Patent 6,261,144 to Nishiki. The rejections are respectfully traversed.

Independent claim 1 recites at least one of a buffer layer or a dielectric layer formed between the first substrate and the sealing layer, wherein the at least one of the buffer layer or the dielectric layer includes the following composition: PbO at a ratio of 45% to 55%, B₂O₃ at a ratio of 10% to 20% and SiO₂ at a ratio of 15% to 25%.

The applied references do not teach or suggest these features. More specifically, Ebihara does not teach or suggest the composition as recited in independent claim 1. The Office Action relies on Miyaji as teaching (in Figures 1-5) a buffer layer 18 composed of PbO, B₂O₃, Al₂O₃ and SiO₂. See, for example, Miyaji's column 7, lines 25-47. However, these features do not teach or suggest the claimed ratios as specifically recited in independent claim

Reply to Office Action dated October 27, 2005

1. Therefore, the applied references do not teach or suggest these missing features of independent claim 1. Accordingly, independent claim 1 defines patentable subject matter. Dependent claims 34 and 39 are also believed to define patentable subject matter for at least similar reasons.

Independent claim 26 recites at least one of a buffer layer or a dielectric layer formed between the first substrate and the sealing layer, wherein the at least one of the buffer layer or the dielectric layer has a thermal expansion coefficient greater or equal to $72 \times 10^{-7}/^{\circ}\text{C}$.

The applied references do not teach or suggest these features. That is, when address previous claim 9, the Office Action states that the thermal expansion coefficient of the buffer layer is merely a property of a material used in manufacture of the buffer layer and the property does not differentiate the claimed apparatus from the prior art apparatus satisfying the claimed structure limitations. However, applicant respectfully disagrees. That is, the claimed at least one of the buffer layer or the dielectric layer has a specifically claimed thermal expansion coefficient. This thermal expansion coefficient is more than a mere property and is a specific limitation of the claim. Thus, this limitation needs to be specifically addressed. Applicant respectfully submits that the applied references do not teach or suggest the claimed thermal expansion coefficient greater or equal to $72 \times 10^{-7}/^{\circ}\text{C}$. Accordingly, independent claim 26 defines patentable subject matter. Dependent claims 9, 35 and 38 define patentable subject matter for at least similar reasons.

Reply to Office Action dated October 27, 2005

Independent claim 32 recites at least one of a buffer layer or a dielectric layer provided on the first substrate and provided between the first substrate and the sealing layer, wherein the buffer layer has a thickness of 35 μ m to 50 μ m between the sealing layer and the first substrate.

The applied references do not teach or suggest the claimed buffer layer that has a thickness of 35 to 50 μ m between the sealing layer and the first substrate. Accordingly, independent claim 32 defines patentable subject matter at least for this reason. Dependent claim 37 further defines patentable subject matter by reciting that the thickness of the buffer layer is 40 μ m to 50 μ m.

Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1, 3, 5, 7-9, 11-13 and 26-39 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

Serial No. **10/830,068**

Docket No. **YHK-0135**

Reply to Office Action dated October 27, 2005

concurrent and future replies, including extension of time fees, to Deposit Account 16-0607
and please credit any excess fees to such deposit account.

Respectfully submitted,
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